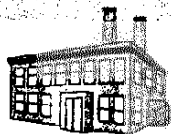




The Value of Sharing Lessons Learned

March 1998

An employee at the Idaho Falls site received an unexpected neutron exposure from Americum Beryllium (AmBe) stored in an office directly below the room he was in. Since 1992, the AmBe source has been maintained in the original Styrofoam container that it was shipped in. The RadCon technicians assumed the Styrofoam container provided adequate protection because it was shipped that way.



The direct cause of this event was a lack of appropriate training. The RadCon technicians who work in the building were not aware that the room directly above the AmBe source could be exposed to the radioactivity generated. Had they received appropriate training as to the hazards associated with this source, routine surveillances would have been implemented and the source would have been stored in a borated-poly container instead of the Styrofoam container it was shipped in.

September 1997

A task was initiated to replace floor tiles in the halls of an Oak Ridge site building. This task involved the use of an adhesive with mineral spirits glue derivative. During the day, several employees began to feel nauseated and light-headed as the result of the vapors from the adhesive materials used to lay the tiles. Employees were evacuated from the area, and most reported feeling better after they were in an area with fresh air. Several employees reported to the medical center



for evaluation and returned to work the following day.

An employee in the area who has been diagnosed with Chronic Beryllium Disease (CBD) experienced additional effects from the inhalation of the vapors. For several days, this employee experienced breathing problems, which were determined to be related to the vapors from the tile adhesive. With CBD, inflammation and scarring of the lungs make it more difficult for the lungs to get oxygen to the bloodstream and body, a condition that can be further aggravated by the inhalation of chemicals. A second employee with pre-existing respiratory problems also experienced additional respiratory aggravation.

The building manager was not aware of the respiratory health problems of the employees at the time the work was planned. Had the building manager been aware of these health problems, the work could have been scheduled during an off-shift or the employees reassigned to a different area during the time the work was in progress.

May 1997



Elevated workplace sample data in excess of American Conference of Government Industrial Hygiene limits was obtained on four Oak Ridge employees. Each was wearing a personal air sampler. Their exposures were a direct result of defective or inadequate procedures.

According to the investigative team, porous packaging material, less than thorough decontamination and

ultrasonic cleaning of material, and the removal of filter media from the cassettes by "tamping" them onto rubber gloves may all have contributed to elevated airborne levels.

All existing beryllium-related operations will undergo a Beryllium hazard analysis and require a Beryllium work plan. The hazard analysis and work plan will help ensure that a proper review of all work is performed and that all personnel entering these areas are informed of all the requirements.

September 1993

Rocky Flats management identified a potential concern at the laundry facility regarding the handling of bags containing clothing from beryllium facilities. The bags in question have inner bag breaches or tears creating the potential for increased airborne levels. A deficiency in the current procedure does not address the handling requirements for bags found to have inner breaches after they have arrived at the laundry facility.



Management directed that all bags discovered to have breaches, regardless of their location, were to be secured and then coordinated with Industrial Hygiene for transport back to the originating facility for repacking. Further, actions were taken to ensure the adequacy of air flow into the washers to ensure any Beryllium associated with the clothing being loaded would be collected into the washers.